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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/662,940  
Filing Date: September 16, 2003  
Appellant(s): CHEN ET AL.

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Dalei Dong  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 03/09/2009 appealing from the Office action mailed 08/07/2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US 5,544,036	Brown, Jr. et al.	Aug. 6, 1996
US 6,178,362	Woolard et al.	Jan. 23, 2001

## **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3, 7, 8, 13, 15, 17, 19, 152, 180-182, 186, 187, 192, 194, 196, 198 and 331 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown, Jr. et al. (US 5,544,036) in view of Woolard et al. (US 6,178,362).**

Brown, Jr. et al. (Brown) teaches a computer-implemented method and system for remote energy management and home automation system, said system including a central computer 24, a communication device (controller 14), and a communication link (transmitter 20), said method comprising:

Claims 1 and 180,

Automatically (by the central computer 24) generating at least one informational message at a central computer responsive to one or more of resource-consumption by, resource-production by, operating characteristics of, and operational state of ("when it is necessary"), of at least one device (C. 4, L. 7-18; Figs. 1, 2);

transmitting the at least one informational message to at least one communication device (controller 14) (C. 4, L. 7-14),

where the at least one communication device (controller 14) initiates at least one action having the effect of providing a change of one or more of resource-consumption

by, resource-production by, operating characteristics of, and operational state of one or more of the at least one device of the plurality of remote devices (C. 4, L. 7-18).

Brown does not explicitly teach that said central computer includes a server. However, the use of a computer as a server is old and well known. For example, Woolard et al. (Woolard) teaches a method and system for remote energy management and home automation system, said system including a central server 60 (Fig. 3), which is configured to be in control communication with peripheral energy consuming devices D (C. 7, L. 37-38, 8-15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Brown to include that said central computer includes a server, as disclosed in Woolard, because it would advantageously allow to implement said system for multi-building facility, and interconnect various equipment for purposes of control and managing, as specifically stated in Woolard (C. 7, L. 32-35).

Claims 2 and 181, Brown teaches said method and system, wherein the at least one informational message comprises at least one control signal and wherein the at least one communication device comprises at least one interface unit, where the interface unit in communication with the one or more devices controls the at least one device in accordance with the at least one control signal, to take an action having the effect of providing a change of one or more of resource-consumption and resource-production attributed to the at least one device (Fig. 1, 2; C. 3, L. 26-28; C. 4, L. 7-18; C. 5, L. 9-33).

Claims 3 and 182, Woolard teaches: receiving at least one command at the central server (60 (Fig. 3); C. 5, L. 47-51). As per the at least one command is related to controlling at least one device and wherein the at least one informational message is generated based on the at least one command, Brown teaches said feature (See reasoning above). The motivation to combine references would be to provide tools for developing strategies to reduce energy costs (Woolard; C. 5, L. 49).

Claims 7 and 186, Brown teaches said method and system, wherein the at least one informational message comprises an instruction directed to one or more of activating and deactivating the at least one device (C. 4, L. 7-14).

Claims 8 and 187, Brown teaches said method and system, wherein the at least one informational message comprises an instruction to adjust the operation of the at least one device wherein the instruction to adjust the operation is directed to one or more of state, use, one or more parameters, one or more set points, operating characteristics, duty cycle, control logic and scheduling of the at least one device (C. 4, L. 44-51).

Claims 13, 14, 152 and 192, 194, 331, Woolard teaches said method and system, wherein the at least one command is generated in accordance with a user profile (C. 6, 45-52; C. 7, L. 4-11).

Claims 17 and 196, Brown teaches said method and system, wherein the devices comprises one or more of an air-conditioner, boiler, motor starter and heater (C. 4, L. 63-66).

Claims 19 and 198, Brown teaches said method and system, wherein the interface unit causes the adjustments of one or more of resource-consumption and resource-production attributed to the at least one device in accordance with the at least one informational message (C. 4, L. 10-19, 47).

**(10) Response to Argument**

**Claim 1**

(10.01)

**Applicant argues** that the combination of Brown and Woolard fails to disclose, or even suggest, a method for controlling one or more of resource-consumption and resource-production associated with a plurality of remote devices, comprising: **"automatically** generating at least one informational message at a central server **responsive** to one or more of resource-consumption by, resource-production by, operating characteristics of, and operational state of at least one device of the plurality of remote devices," as recited in claim 1 (emphasis added). Specifically, Applicant argues that the combination of Brown and Woolard fails to disclose, or suggest, that the signals are *automatically* generated by the utility command center computer 24.

**In response** to this argument it is noted that Brown teaches (C. 4, L. 4-18) (emphasis added):

In certain instances, the energy management and automation functions programmed by the user may be overridden by the utility company when it is necessary to reduce the consumption in a particular area. In this situation, utility command center computer 24 provides signals to transmitter 20, which, in turn, provides appropriate paging messages to the various controllers 14. These messages may cause certain appliances, such as heating or cooling units or water heaters, to be turned off, for selected times, such as for fifteen minutes, or for alternate ten minute increments over a defined period. Alternatively, the paging messages generated as a result of actions by the utility command center computer 24 may only require the selective disabling of certain appliances, such as reducing the temperature at which a heating unit can turn on, or increasing the temperature at which a cooling can unit turn on.

From this paragraph it is clear that informational messages/signals are generated automatically, by the utility command central computer 24, in response to the sensed/developed condition in the grid caused by energy consumed by the certain appliances/remote devices situated at the utility customers' premises.

(10.02).

In response to Applicant's argument against the "obvious" statement regarding "automatic feature (Brief, pages 9-10), it is noted that said statement has been withdrawn, thereby making said arguments moot.

(10.03).

**Applicant argues** that Brown teaches away from "*automatically* generating at least one informational message at a central server *responsive* to one or more of resource-consumption by, resource-production by, operating characteristics of, and operational state of at least one device of the plurality of remote devices," as recited in claim 1. Specifically, Applicant argues that Brown merely discloses generating a message when the potential demand for power exceeds the ability of the utility company to generate power and fails to disclose, or even suggest, "*automatically* generating at least one informational message at a central server *responsive* to one or more of resource-consumption by, resource-production by, operating characteristics of, and operational state of at least one device of the plurality of remote devices," as recited in claim 1 (emphasis added).

**In response** to this argument the examiner maintains that Brown explicitly discloses the "automatic" feature (See the discussion above (10.01)).



Claim 2

(10.04).

**Applicant argues** that the proposed combination fails to disclose that "the at least one information message comprises at least one control signal and wherein the at least one communication device comprises at least one interface unit, where the interface unit in communication with the one or more devices of the plurality of remote devices controls the at least one device in accordance with the at least one control signal, to take an action for providing a change of the one or more resource-consumption and resource-production attributed to the at least one device." Further, Applicant argues that there is no suggestion that any such a feature or functionality is desirable or advantageous in the method of Brown in view of Woolard.

**In response** to this argument the examiner again refers to Brown's teaching at the (C. 4, L. 4-18) paragraph, which explicitly discloses automatically controlling (turning off and turning on) remote appliances by sending control messages by the utility command central computer 24. Furthermore, Fig. 1 discloses a transmitter 20 which sends control messages to appliances controllers (C. 3, L. 26-28), and Fig. 2 discloses pager receiver and telephone interface for receiving said informational messages/signals (C. 5, L. 9-33).

Claim 3

(10.05).

**Applicant argues** that Brown in view of Wootard fails to disclose "receiving at least one command at the central server, wherein the at least one command is related to controlling the at least one device and wherein the at least one information message is generated based on the at least one command."

**In response** to this argument it is noted that Woolard was applied to disclose a "server" feature. As per the at least one command is related to controlling at least one device and wherein the at least one informational message is generated based on the at least one command, Brown teaches said feature (See the discussion above).

**Claim 7**

(10.06).

**Applicant argues** that Brown in view of Woolard fails to disclose that "the at least one informational message comprises an instruction directed to one or more of activating and deactivating the at least one device."

**In response** to this argument the examiner again refers to Brown's teaching at the (C. 4, L. 4-18) paragraph, which explicitly discloses automatically controlling (turning off and turning on) remote appliances by sending control messages by the utility command central computer 24.

**Claim 8**

(10.07).

**Applicant argues** that Brown in view of Woolard fails to disclose that "the at least one informational message comprises an instruction to adjust operation of the at least one device wherein the instruction to adjust the operation is directed to one or more state, use, one or more parameters, one or more set points, operating characteristics, duty cycle, control logic and scheduling of the at least one device."

**In response** to this argument the examiner refers to Brown's teaching at the (C. 4, L. 44-51) paragraph disclosing said feature (emphasis added):

The various types of signals generated by computers 22 and 24, and transmitted as paging messages by transmitter 20, may be generally classified as containing, Schedule Information, Time, Date and Daylight Information, Weather information, Initialization information, Utility Company Setup information, Utility Company Activation commands, User Override commands, and System Parameter commands.

Claims 13, 15

(10.08).

**Applicant argues** that Brown in view of Woolard fails to disclose that the at least one command is generated in accordance with a user profile."

**In response** to this argument it is noted that Woolard discloses providing the customers ability to customize operation of their appliances, and optimize the existing systems (HVAC) (C. 6, 45-52; C. 7, L. 4-11). Specifically, Woolard teaches that user can customize, create or update a particular site to add various information. Such customization of the user's facility operation indicates "profile" feature.

Claim 17

(10.09).

**Applicant argues** that Brown in view of Woolard fails to disclose that "the one or more devices of the plurality of remote devices comprises one or more of an air-conditioner, boiler, motor starter and heater."

**In response** to this argument it is noted that Brown explicitly teaches HVAC system (C. 4, L. 63-66).

Claim 19

(10.10).

**Applicant argues** that Brown in view of Woolard fails to disclose that "the interface unit causes adjustments of the one or more of resource-consumption and resource-production attributed to the at least one device in accordance with the at least one informational message".

**In response** to this argument it is noted that Brown explicitly teaches said feature (C. 4, L. 4-18) (emphasis added):

In this situation, utility command center computer 24 provides signals to transmitter 20, which, in turn, provides appropriate paging messages to the various controllers 14. These messages may cause certain appliances, such as heating or cooling units or water heaters, to be turned off for selected times, such as for fifteen minutes, or for alternate ten minute increments over a defined period. Alternatively, the paging messages generated as a result of actions by the utility command center computer 24 may only require the selective disabling of certain appliances, such as reducing the temperature at which a heating unit can turn on, or increasing the temperature at which a cooling unit turn on.

(10.11).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, both Brown and Woolard relate to energy management automation systems, wherein the operation of appliances is automatically controlled based on monitored data. The advantage to include server into the Brown's system would be the ability to interconnect various equipment in multi-building facility for purposes of control and managing, as specifically stated in Woolard (C. 7, L. 32-35).

The remaining applicant's arguments essentially repeat the arguments presented above; therefore, the responses presented by the examiner above are equally applicable to the remaining applicant's arguments.

**(11) Related Proceeding(s) Appendix**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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